### ETOWAH ENVIRONMENTAL SERVICES



9 Bedford Court Cartersville, Georgia 30120 Phone 470.888.2810 Cell Phone 770.547.7854 Email dennispopham81@comcast.net

June 22, 2015

Mr. David Butler Greenspace Program Environmental Manager c/o The DeKalb County Department of Watershed Management 1641 Roadhaven Drive Stone Mountain, Georgia 30082

Subject:

Report of a Pre-Demolition Asbestos Inspection

979 Scott Circle

Decatur, DeKalb County, Georgia Tax Parcel ID 18-061-01-030

Dear Mr. Butler:

Please find attached the results of the Pre-Demolition Asbestos Inspection that Etowah Environmental Services (Etowah) completed at the above-referenced site on June 13, 2015. We understand that DeKalb County has purchased this property as part of the FEMA Pre-Disaster Mitigation Program and that the County intends to demolish the existing structure on the property in the near future. The following is a discussion of the findings of our asbestos inspection.

The house on this property dates from the 1960s. It is a one-story ranch-style house built over a dirt floor crawlspace. The house has been extensively remodeled with a new room constructed where a carport was once located and an updated kitchen and bathrooms. The house has a pitched, shingled roof and brick exterior walls. The house is heated by a central HVAC system located in the utility room behind the enclosed room that was formerly a carport. The metal ductwork for the HVAC system is located in the crawlspace of the house.

During the inspection we collected seven bulk material samples from potential asbestos containing materials noted in and on the house. The potential asbestos samples were collected by Mr. Dennis Popham, who is an AHERA certified asbestos inspector. Mr. Popham's accreditation certificate is attached to this report. The samples were submitted to Bureau Veritas of Kennesaw, Georgia. At the laboratory, the samples were analyzed for asbestos content using a polarized light microscope in accordance with EPA Method 600/R-93/116.

Samples were collected from the following materials

- Older vinyl flooring beneath newer quarry tile flooring in the kitchen (two samples)
- Drywall joint compounds (three samples)
- Window caulk (one sample) and
- Duct tape on the HVAC system (one sample).

The laboratory reported that asbestos was detected in the sample of duct tape (50% chrysotile) and in two of the three samples of drywall joint compound (2% and <1% chrysotile). The asbestos containing joint compounds were detected in drywall that appeared to be original to the house. No asbestos was detected in drywall used in the renovated room in the carport. A complete description of the materials sampled and the results of analytical testing are provided on the attached Table 1.

Under the US EPA's National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations, all friable ACMs and all non-friable Category 1 and Category 2 ACMs that would become friable during demolition activities must be removed from a structure before demolition.

Based upon the findings of our asbestos inspection, Etowah recommends that the asbestos-containing tape on the metal ducts in the crawlspace be removed as RACM and properly disposed of by a licensed asbestos abatement contractor prior to demolition. We also recommend that all of the original drywall in the house be removed of as ACM based on the results from sample 979-04 (2% chrysotile). The drywall in the renovated carport room does not appear to contain asbestos.

We appreciate the opportunity to work for you on this project. Please contact us if you have any questions or if we can be of further assistance.

Sincerely,

ETOWAH ENVIRONMENTAL SERVICES, INC.

Dennis P. Popham, P.G.

Principal Environmental Consultant

Attachments: Tabl

Table of Asbestos Results Asbestos Sample Analysis Report AHERA Certification Form

# Table 1 Asbestos Sample Results 979 Scott Circle

Sample No.	Material/Location	Asbestos Content	Estimated Quantity
979-01	Older layer of sheet vinyl beneath newer quarry tile in the kitchen	NAD	NA
979-02	Older layer of sheet vinyl beneath newer quarry tile in the kitchen	NAD	NA
979 -03	Drywall joint compound in the front bedroom	>1% chrysotile	All original walls and ceiling
979 -04	Drywall joint compound in the rear bedroom	2% chrysotile	All original walls and ceiling
979 -05	Drywall joint compound in the renovated carport room	NAD	NA
979 -06	Glazing used on a rear window	NAD	NA
979 -07	Duct tape on the HVAC ducts in the crawlspace	50% Chrysotile	Used on joints of HVAC ducts-

NA-Not Applicable, no regulated concentrations of asbestos were detected in the samples of this material. NAD-No asbestos detected in the sample.





June 22, 2015

Mr. Dennis Popham ETOWAH ENVIRONMENTAL SERVICES 9 Bedford Court Cartersville, GA 30120-

Bureau Veritas Work Order No. A1506152

Reference: 2015-36

Dear Mr. Dennis Popham:

Bureau Veritas North America, Inc. received 7 samples on June 15, 2015 for the analyses presented in the following report.

The results apply only to the samples analyzed in this project. Please note that any unused portion of the samples will be discarded after a sixty-day holding period, unless you have requested otherwise.

This material is confidential and is intended solely for the person to whom it is addressed. If this is received in error, please contact the number provided below.

We appreciate the opportunity to assist you. If you have any questions concerning the report, please contact the analyst whose name appears on the report or myself at (770) 499-7701.

Sincerely,

N. Gapou

Nadiya Gapon

Senior Microscopist

Electronic signature authorized through password protection



Date: 22-Jun-15

#### **CASE NARRATIVE**

CLIENT:

ETOWAH ENVIRONMENTAL SERVICES

Project:

2015-36

Work Order No A1506152

## ANALYTICAL METHOD FOR ASBESTOS IN BULK SAMPLES USING POLARIZED LIGHT MICROSCOPY (PLM)

The results of this report relate only to the samples listed in the body of this report.

Unless otherwise noted below, the following statements apply: 1) all samples were received in acceptable condition, 2) all quality control results associated with this sample set were within acceptable limits and/or do not adversely affect the reported results, and 3) the industrial hygiene results have not been blank corrected unless otherwise noted.

Use of EPA/600/R-93/116 satisfies applicable requirements of the USEPA's "Interim Method for the Determination of Asbestos in Bulk Insulation Sample", EPA-600/M4-82-020, December 1982, published as Appendix E to Subpart E of 40CFR763. Bulk samples analyzed by New York State methods follow stratified point counting methods (198.1) or Method 198.6 for PLM non-friable organically bound materials (NYSDOH Lab Code -11645). Percentages are visual estimations of asbestos >10:1 aspect ratio. The reliable limit of quantitation of the method is 1%, although asbestos may be qualitatively detected at concentrations less than 1%. Samples for which asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed. NESHAP requires point counting of a bulk sample when the result is <10% by a method other than point counting. EPA, however states that if 3 mounts of the sample are analyzed and the asbestos percentage is <10% by visual estimation, the client may elect to assume the amount to be greater than 1% or require verification by point counting. If the result by point counting is different than the result obtained by visual estimation, the point count result will be used. Sample friability or non-friability noted on the report is a requirement for the State of California and refers only to the condition of the sample under macroscopic examination. It does not imply friability or non-friability for the sample as collected or observed in the field as determined by the person collecting the sample. The Kennesaw, Georgia lab is accredited by NVLAP -Lab Code 101125-0.

(a)Polarized- light microscopy is not consistently reliable in detecting asbestos in floor coverings, similar non-friable organically bound materials, soil and vermiculite. Quantitative electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing. When analysis of such materials by PLM yields results negative for the presence of asbestos, Bureau Veritas recommends utilizing quantitative transmission electron microscopy (TEM). For more information, contact the laboratory.

#### References



**CLIENT:** 

ETOWAH ENVIRONMENTAL SERVICES

Project:

2015-36

Work Order No A1506152

McCrone, Walter C. 1980. The Asbestos Particle Atlas. Ann Arbor, MI: Ann Arbor Science Publishers, Inc.

United States Environmental Protection Agency. Environmental Monitoring Systems Laboratory. 1982. Interim Method for the Determination of Asbestos in Bulk Insulation Samples. EPA-600/M4-82-020. Washington: GPO, December.

United States Environmental Protection Agency. Method for the Determination of Asbestos in Bulk Building Materials. EPA-600/R-93/116, July 1993 (PLM)

Fed. Reg. Vol. 55, No.224, 11/20/90, p.48415 (NESHAP) EPA Memorandum 5/8/1991 –NESHAP Clarifications

NYSDOH Methods 198.1/198.6



### **ANALYTICAL RESULTS**

CLIENT: ETOWAH ENVIRONMENTAL SERVICES

Sample Type: Bulk

Date: 22-Jun-15

Work Order No.: A1506152

**Date Received:** 6/15/2015

Client Reference: 2015-36 Report Date: 22-Jun-15

Method Reference: EPA-600/M4-82-020/EPA/600/R-93/116/NYELAP 198.1

Lab II	)		Client Sample ID		Analyst	Date Sampled		Date Analyzed
001A	979	-1			VAK	06/13/2015		06/22/2015
	Layer	PO	B Sample Morphology	Asbestos	%	Other Fibers	%	Particulate
	(1)	100	Homogeneous Gray Fibers compressed into sheets	None Detected		Cellulose fiber	5%	Binder/Filler
002A	979	-2			VAK	06/13/2015		06/22/2015
	Layer	PO	B Sample Morphology	Asbestos	%	Other Fibers	%	Particulate
	(1)	100	Homogeneous Gray Fibers compressed into sheets	None Detected		Cellulose fiber	5%	Binder/Filler
003A	979	-3			VAK	06/13/2015		06/22/2015
	Layer	PO	B Sample Morphology	Asbestos	%	Other Fibers	%	Particulate
	(1)	10	Homogeneous White Coating	None Detected		Non-Detected		Binder/Filler
	(2)	90	Homogeneous Off-White Glazing	Chrysotile	< 1%	Non-Detected		Binder/Filler
				Tot	tal <1%			
04A	979	-4			VAK	06/13/2015		06/22/2015
	Layer	PO	B Sample Morphology	Asbestos	%	Other Fibers	%	Particulate
	(1)	100	Non-homogeneous Blue/White Glazing Layer Comment: Layers inseparable.	Chrysotile	2%	Non-Detected		Binder/Filler
				Tot	tal 2%			
05A	979	-5			VAK	06/13/2015		06/22/2015
	Layer	PO	B Sample Morphology	Asbestos	%	Other Fibers	%	Particulate
	(1)	100	Homogeneous White Mineral Mixture	None Detected		Non-Detected		Binder/Filler
06A	979	-6			VAK	06/13/2015		06/22/2015
	Layer	PO	B Sample Morphology	Asbestos	%	Other Fibers	%	Particulate
	(1)	5	Homogeneous White Paint	None Detected		Non-Detected		Binder/Filler
	(2)	95	Homogeneous Green Glazing	None Detected		Non-Detected		Binder/Filler

The reliable limit of quantitation of the method is 1%, although asbestos may be qualitatively detected at concentrations less than 1%. Samples for which asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed.

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Analyst(s) Name/Date:	1. 334 ment a	6/22/2015



### **ANALYTICAL RESULTS**

ETOWAH ENVIRONMENTAL SERVICES

Date: 22-Jun-15

Bulk

Work Order No.: A1506152

CLIENT:

**Date Received:** 6/15/2015

Sample Type:

Client Reference: 2015-36

Report Date: 22-Jun-15

Method Reference: EPA-600/M4-82-020/EPA/600/R-93/116/NYELAP 198.1

Lab ID		Client Sample ID		Analyst	Date Sampled		Date Analyzed
<u>007A</u> 97	79-7			VAK	06/13/2015		06/22/2015
Lay	er PO	B Sample Morphology	Asbestos	%	Other Fibers	%	Particulate
(1)	100	Non-homogeneous White/Gray Fibers compressed into sheets	Chrysotile	50%	Cellulose fiber	2%	Binder/Filler

Layer Comment: Layers inseparable.

Total 50%

	Lab	oratory Limits
Laboratory		
Range	R Limit	Quartile Limit
0.1-1	100	+/- 1.482
10-100	100	+/- 22.23
1-10	100	+/- 7.41
Trace	100	+/- 1.482
Valentina Kuznetsova (VAK)		
Range	R Limit	Quartile Limit
0.1-1	100	+/- 1.482
10-100	100	+/- 26.676
1-10	100	+/- 5.928
Trace	100	+/- 1.482

The reliable limit of quantitation of the method is 1%, although asbestos may be qualitatively detected at concentrations less than 1%. Samples for which asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed.

Analyst(s) Name/Date:

Mygazaki

6/22/2015

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Far 248	248-344-2655						Fax: 770.499.7511	7511			



# The Environmental Institute

# ennis Popham

Etowah Environmental Services - 9 Bedford Court - Cartersville, Georgia 30120

Has completed coursework and satisfactorily passed an examination that meets all criteria required for EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

Asbestos in Buildings: Inspector & Management Planner Refresher

September 24, 2014

Course Date

September 24, 2014

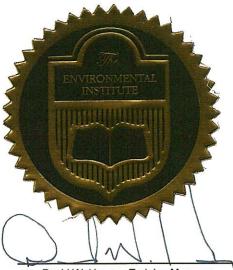
Examination Date

September 23, 2015
Expiration Date

Thomas G. Laubenthal - Principal Instructor

Rachel G. McCain - Exam Administrator

14576



David W. Hogue - Training Manager

(Approved by the ABIH Certification Maintenance Committee for 1 CM point - Approval #11-583) (Florida Provider Registration #FL49-0001342 - Inspector Ref.Course #0002805 - Mgmt. Plan Ref. Course #0002806) TEI - 1841 West Oak Parkway, Suite F - Marietta, Georgia 30062 - (770) 427-3600 - www.tei-atl.com